# Systems and Feedback Loops

**Directions**: Read each of the problems below carefully and fill out the flow chart with the main points from the example. Decide if they are an example of a positive or negative feedback loop and explain why.

**Problem 1**: You are working hard outside and the hard work has caused your body temperature rises. Your body reacts by releasing sweat onto your skin. This water traps heat from your body and is taken away when the water evaporates. But now, your t-shirt is wet and it’s making you cold. To warm you up, your body begins to shake and you get goose bumps all across your skin. After a few minutes of shaking, you become too hot again. Is this a positive or negative feedback loop? Why?

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**Problem 2:** Warm water holds less dissolved gas -- that's why a soda pop goes flat when it gets warm. Normally, there is a great deal of dissolved carbon dioxide in cold ocean water. If global warming occurs and global temperatures increase, warmer ocean water will hold less dissolved carbon dioxide. Less dissolved carbon dioxide in the ocean means more carbon dioxide in the atmosphere. Since carbon dioxide is a "greenhouse gas," the increase in atmospheric carbon dioxide will further boost global temperatures, making it even warmer. Is this a positive or negative feedback loop? Why?

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